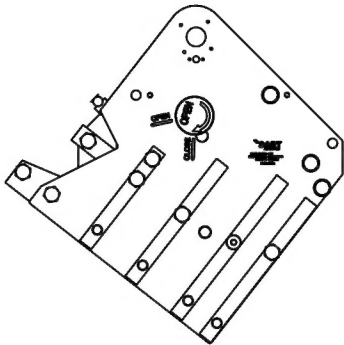
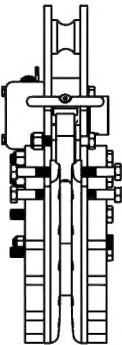


This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.


ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
		B/O	C2-14-2	2	LABEL RIVETS 	18-8 S.S.	NO 4 (MCMaster-CARR #91654A106)	N/S
		B/O	C2-3-2-1	2	RETAINING RING	STEEL	Ø5/16 (KAMAN #1400-0031)	3
			C10-9-1	1	LATCH			3
		B/O	C10-9-2	1	LATCH BEARING		(TORRINGTON #6NBC914YZP)	3
			C10-9-5	1	LATCH SHAFT			3
		B/O	C10-41	1	STRAIN RELIEF CONNECTOR	BRASS	1/2 TRADE SIZE (MCMaster-CARR #6907K14)	2
			8NR-9	1	SIDE PLATE - SOLENOID			2
		B/O	8NR-13	4	RAIL FUNNEL BOLTS	STEEL	1/2-20 X 2-1/4 (MCMaster-CARR #91257A749)	2
			8NR-14	2	LOAD RAIL			2
		B/O	8NR-17	1	LOAD STOP BUSHING	STEEL	Ø7/8 O.D X Ø.5 I.D. X 1-1/2 (MCMaster-CARR #8491A741)	2
			8NR-21	1	ACTUATOR SHAFT			3
			8NR-29	2	LATCH PIN BUSHING			3
			8NR-40	1	UPPER RAIL			2
			8NR-43	1	SIDE PLATE - COVER			2
			8NR-44	2	STIFFENER 3 HOLE			2
		B/O	8NR-47	1	SHOULDER BOLT	STEEL	3/8-16 X Ø1/2 X 4-1/4 (MCMaster-CARR # 91259A729)	2
			8NR-49	2	STIFFENER 2 HOLE			2
			8NR-50	2	STIFFENER OFFSET HOLES			2
		B/O	8NR-51	1	NYLOCK NUT FOR SHOULDER BOLT	STEEL	3/8-16 (MCMaster-CARR #90630A121)	2
			8NR-73	2	STIFFENER			2
		B/O	8NR-74	4	BOLTS	STEEL	1/2-20 X 5 (MCMaster-CARR #91257A755)	2
			20NR-02	1	SOLENOID COVER			2
			20NR-04	1	SOLENOID ASSEMBLY			2
		B/O	20NR-05	1	SOLENOID LOCATING PIN	S.S.	Ø1/4 X 3/8 (MCMaster-CARR #90145A536)	2
		B/O	20NR-06	1	SOLENOID LOCATING PIN	S.S.	Ø3/16 X 3/8 (MCMaster-CARR #90145A503)	2
			20NR-08	1	LIFTING BUSHING			2
			20NR-10	1	SPACER			3
			20NR-11-1	2	STEP PIN			3
		B/O	20NR-11-2	2	STEP PIN E-CLIP	S.S.	Ø3/16 (MCMaster-CARR #98408A126)	3
		B/O	20NR-15	4	PLATE BUSHING	STEEL	O.D. Ø1-1/8 X I.D. Ø17/32 (MCMaster-CARR #98029A033)	2
			20NR-16	1	LOAD STOP			2
		B/O	20NR-19	1	ACTUATOR PIN SHORT	S.S.	Ø1/4 X 1-1/2 (MCMaster-CARR #97855A630)	3
		B/O	20NR-20	1	ACTUATOR PIN LONG	S.S.	Ø1/4 X 2 (MCMaster-CARR #92383A754)	3
		B/O	20NR-22	1	ACTUATOR WASHER	STEEL	Ø5/8 (MCMaster-CARR #95229A610)	3
			20NR-23	1	RUBBER PAD SOLENOID BACKING	RUBBER	(MCMaster-CARR #8609K48) MODIFIED	2
		B/O	20NR-24	2	LATCH RETURN SPRING	STEEL	Ø.25 OD X Ø.023 WIRE (MCMaster-CARR #9654K519)	3
			20NR-26	1	ROUND BUMPER			2
		B/O	20NR-27	2	SPRING HOLDER PIN	S.S.	Ø3/16 X 1-1/2 (MCMaster-CARR #90145A514)	2
		B/O	20NR-28	4	KEEPER BOLT	STEEL	1/2-20 X 3 (MCMaster-CARR #91257A751)	2
		B/O	20NR-33	1	LOCK WASHER KEEPER	S.S.	Ø1/4 (MCMaster-CARR #90900A030)	2
		B/O	20NR-34	1	KEEPER HANDLE SCREW	STEEL	1/4-20 X 1-1/4 (MCMaster-CARR #91253A544)	2
			20NR-35	1	KEEPER HANDLE			2
			20NR-36	1	KEEPER HANDLE BLOCK			2
			20NR-37	1	KEEPER			2
		B/O	20NR-38	1	KEEPER BUSHING	STEEL	Ø3/4 X 1 (MCMaster-CARR #8491A462)	2
		B/O	20NR-39	1	KEEPER SPRING	STEEL	Ø.375 OD X Ø.035 WIRE (MCMaster-CARR #9654K193)	2
			20NR-41	1	MANUAL RELEASE KNOB			2
		B/O	20NR-45	6	NYLOCK NUT	STEEL	1/2-20 (MCMaster-CARR #97135A255)	2
			20NR-54	1	LOCK BEARING PIN			3
			20NR-56	1	SPRING ANCHOR	STEEL	8-32 X 7/8 (MCMaster-CARR #9634K22) MODIFIED	3
		B/O	20NR-57	2	CIRCLIP (LOCK ROLLER PIN)	STEEL	Ø3/8 (MCMaster-CARR #97633A170)	3
			20NR-58	1	LOCK ROLLER PIN			3
		B/O	20NR-60	1	LOCK BUSHING	STEEL	Ø3/4 X 1-1/2 (MCMaster-CARR #8491A738)	3
			20NR-61	1	LOCK			3
			20NR-62	1	LOCK ROLLER			3
		B/O	20NR-63	1	BEARING LOCK		Ø1 X 5/8 (MCGILL #CYR-1-S)	3
			20NR-64	3	FLAT BUMPER			2

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		AS DRAWN BY CANAM	8/1/2013	CFS	
2	15-0127	UPDATED TO NEW DRAFTING STANDARDS. REMOVED 20NR-03. 20NR-11. 20NR-17 REPLACED W/ 8NR-17. 20NR-30 REPLACED W/ C10-9-1. 20NR-31 REPLACED W/ C10-9-2. 20NR-32 REPLACED W/ C10-9-5. 20NR-91 REPLACED W/ 600.1309. 20NR-113 REPLACED W/ 600.1325. 8NR-114 REPLACED W/ AN960-616. 20NR-01 REPLACED W/ AN4-23A. 20NR-25 REPLACED W/ 188-FPSS-1032-1/4. 20NR-52-3 REPLACED W/ AN960-616. 20NR-55 REPLACED W/ C2-3-2-1. 20NR-92 REPLACED W/ C2-14-2. 20NR-110 REPLACED W/ MS21083N4. 20NR-111 REPLACED W/ AN960-416L. 20NR-115 REPLACED W/ C10-41. 32446 REPLACED W/ 32448. AN365-624A REPLACED W/ MS21044N6. UPDATED P/N'S TO MIL SPEC NUMBERS. ADDED 600.1309-A. AN960-416 QTY 3. AN960-816 QTY 6. 20NR-24 CH'D B/O REF. WAS #9654K193 IS 9654K519. ADDED LASER ENGRAVE NOTE. ADDED REBUILD ONLY NOTES.	6/3/2015	DPD	JAG
3	16-0156	20NR-97 ADDED TO BOM QTY 2.	9/30/2016	DPD	JAG


ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
		B/O	20NR-65	1	BACK SPACER BUMPER PIN	S.S.	Ø1/8 X 1-1/2 (MCMaster-CARR #90145A884)	2
			20NR-66	1	SIDE RAIL			2
		B/O	20NR-67	1	LOAD STOP RETURN SPRING	STEEL	Ø.375 OD X Ø.035 WIRE (MCMaster-CARR #9654K916)	2
		B/O	20NR-68	1	LIGHT RELEASE SPRING	STEEL	Ø.028 WIRE X 3-1/8 DENDOFF	3
		B/O	20NR-69	1	LIGHT RELEASE PIVOT SHAFT	S.S.	Ø1/4 X 1-1/2 (MCMaster-CARR #90145A546)	3
			20NR-70	1	LIGHT RELEASE LEVER			3
		B/O	20NR-71	1	STOP PIN	S.S.	Ø1/8 X 1 (MCMaster-CARR #98380A475)	3
			20NR-72	1	LIGHT RELEASE PIVOT BUSHING			3
		B/O	20NR-97	2	LOCATING PIN	STEEL	Ø1/4 X 2-1/4 (MCMaster-CARR #98381A551)	2
	X		20NR-117	1	WIRE ASSEMBLY			3
	1	B/O	EL314-SJTOW		ELECTRICAL WIRE 3/14 SJTOW		(TEXCAN 314-SJTOW)	3
	1	B/O	EL-PLUG-M		MALE PLUG	PE High Density	(MCMaster-CARR #7216K5)	3
	1	B/O			HEAT SHRINK TUBE	RUBBER	(MCMaster-CARR #2595K22)	N/S
	2	B/O	32448		16-14 AWG KNIFE CONNECTOR		(ALLIED ELECTRONICS #32448)	3
			600.1309	1	LABEL 			N/S
			600.1309-A	1	LABEL 			N/S
		B/O	600.1325	1	SOLENOID WARNING STICKER 	VINYL	3/4 X 3 (SIGNS NOW)	N/S
		B/O	188-FPSS-1032-1/4	2	SET SCREW	S.S.	10-32 X 1/4 (MCMaster-CARR #94355A330)	3
		B/O	188-FPSS-1/4 20-3/8	2	SET SCREW	S.S.	1/4-20 (MCMaster-CARR #92313A535)	2
		B/O	AN4-23A	3	BOLT	STEEL	1/4-28 X 2.41	2
		B/O	AN6-27A	1	AN6 BOLT	STEEL	3/8-24 X 2.953	2
		B/O	AN960-416	3	WASHER	STEEL	1/4	2
		B/O	AN960-416L	2	WASHER	STEEL	Ø1/4	2
		B/O	AN960-616	3	AN-6 WASHER	STEEL	Ø3/8	2
		B/O	AN960-816	6	WASHER	STEEL	Ø1/2	2
		B/O	MS21044N6	1	LOCK NUT	STEEL	3/8-24	2
		B/O	MS21083N4	2	NYLOCK NUT	STEEL	1/4-28 LOW PROFILE	2
	ASSY -117							



NOTES:

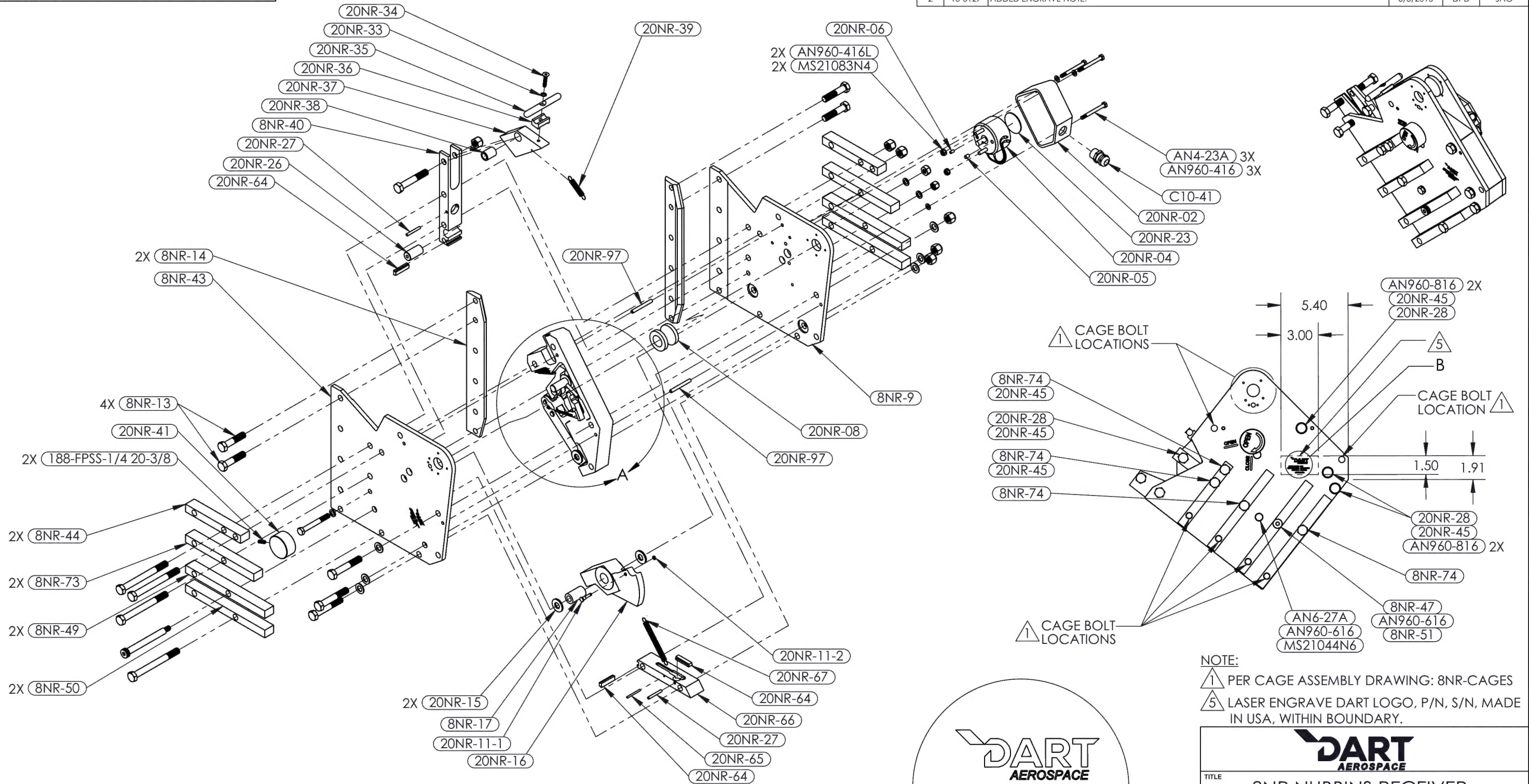
 3 FOR REBUILD ONLY.

 4 FOR CUSTOMER REBUILD ONLY.

			
TITLE 8NR NUBBINS RECEIVER			
DWG NO. 8NR			REV 3
MAT'L HEAT TREAT FINISH SPEC		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 SURFACES = 125✓	
DRAWN BY: CANAM		1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED: CLOUGH		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY		USED ON MODEL	
APPROVED: GILBERT			
SCALE 1:10		DATE 12/1/1995	SHEET 1 OF 3

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS			DATE	INITIAL	APPROVED
REV	ECR	DESCRIPTION			
2	15-0127	ADDED ENGRAVE NOTE.	6/3/2015	DPD	JAG



DART
AEROSPACE

PART NUMBER: 8NR
SERIAL NUMBER: XXXXXXXXXX
CAPACITY: 8,000 LBS
MADE IN USA

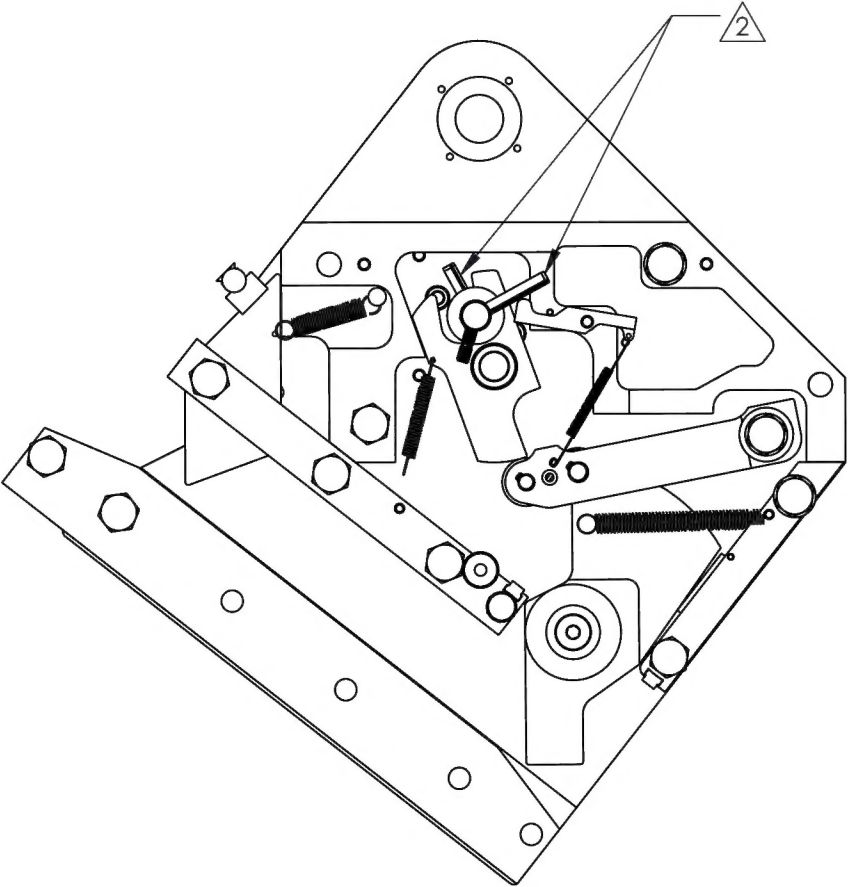
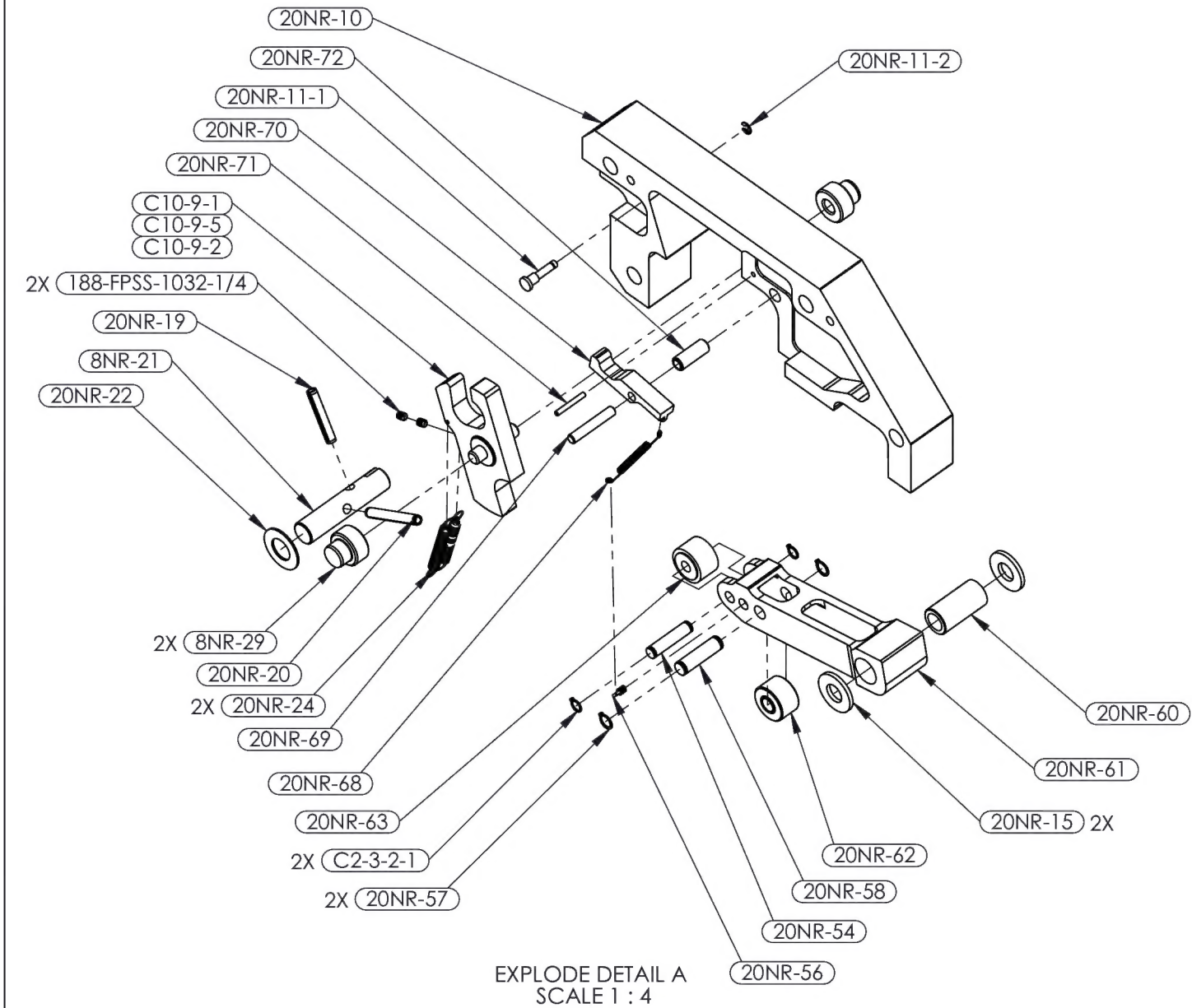
DETAIL B
SCALE 1 : 1

NOTE:
1 PER CAGE ASSEMBLY DRAWING: 8NR-CAGES
5 LASER ENGRAVE DART LOGO, P/N, S/N, MADE IN USA, WITHIN BOUNDARY.

DART AEROSPACE	
TITLE 8NR NUBBINS RECEIVER	
DWG NO. 8NR	REV 3
MATERIAL HEAT TREAT FINISH SPEC	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
USED ON MODEL	
DRAWN BY: CANAM	
CHECKED: CLOUGH	
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:8	DATE 12/1/1995
SHEET 2 OF 3	

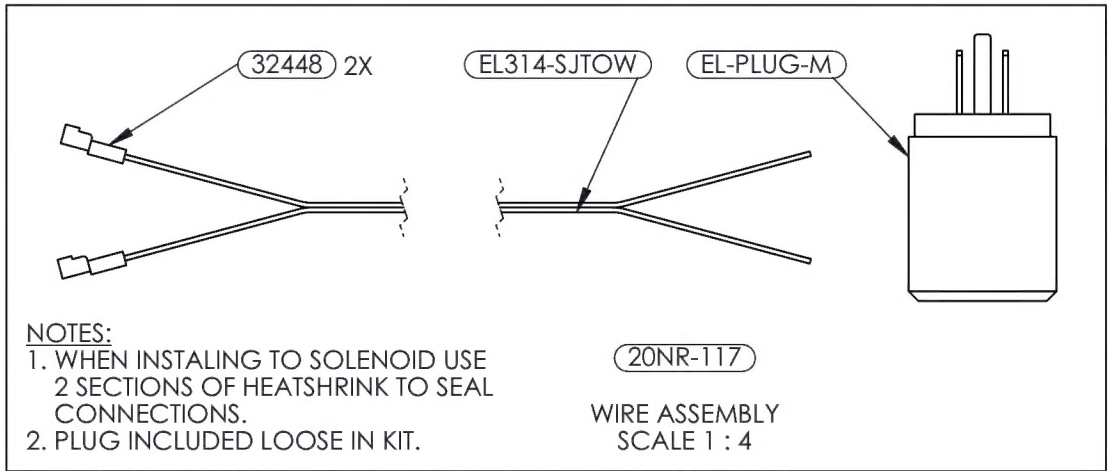
This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL




COVER REMOVED TO SHOW INTERNAL DETAIL

NOTE:
2 20NR-19 AND 20NR-20 PRESSED THRU 20NR-21 FLUSH TO SURFACE.,



NOTES:
1. WHEN INSTALING TO SOLENOID USE 2 SECTIONS OF HEATSHRINK TO SEAL CONNECTIONS.
2. PLUG INCLUDED LOOSE IN KIT.

			
TITLE 8NR NUBBINS RECEIVER			
DWG NO. 8NR			REV 3
MAT'L		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125✓	
HEAT			
TREAT			
FINISH			
SPEC			
DRAWN BY:	CANAM	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED:	CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR:	ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR:	LINDSAY	USED ON MODEL	
APPROVED:	GILBERT		
SCALE 1:4	DATE 12/1/1995	SHEET 3 OF 3	